Applicant: Smith et al.

Application No.: Unassigned

Filing Date: Herewith

Docket No.: 903-134 PCT/US

Page 3

## B. Amendments to the Claims:

Please amend the claims as follows:

- 1. (original) Method for the preparation of crosslinked enzyme aggregates, comprising enzyme molecules being associated with an enzyme activity-enhancing agent, the enzyme activity-enhancing agent interacting with the said enzyme molecules, comprising the steps of:
  - A providing a plurality of enzyme molecules,
  - B aggregating the enzyme molecules in a liquid medium, by means of addition of a precipitating agent,
  - C crosslinking the aggregated enzyme molecules to one another by providing a crosslinking agent in the liquid medium,

the method comprising, during or between steps A, B or C, the step of adding an enzyme activity-enhancing agent and allowing the enzyme molecules to become and to remain associated with the enzyme activity-enhancing agent.

- 2. (original) Method according to claim 1, wherein the enzyme molecules comprise cofactor dependent enzyme molecules.
- 3. (currently amended) Method according to claim 1 or 2, wherein the enzyme activity-enhancing agent comprises a cofactor.
- 4. (currently amended) Method according to claim 3, wherein the cofactor is chosen from the group of nicotinamide cofactors, comprising NADH, NAD<sup>+</sup>, NADPH, and NADP<sup>+</sup>.
- 5. (original) Method according to claim 3, wherein the cofactor is an analogue of the nicotinamide cofactor.

Applicant: Smith et al.

Application No.: Unassigned

Filing Date: Herewith

Docket No.: 903-134 PCT/US

Page 4

- 6. (currently amended) Method according to <u>claim 1</u> any of the preceding claims, wherein the enzyme is an alcohol dehydrogenase.
- 7. (original) Method according to claim 5, wherein the alcohol dehydrogenase is derived from *Lactobacillus kefir* or horse liver.
- 8. (currently amended) Method according to <u>claim 1</u> any of the preceding claims, wherein the crosslinking agent being prepared by combining a first and a second compound each having at least two reactive groups, the reactive group of the first compound being primary amino groups, the reactive groups of the second compound being aldehyde groups.
- 9. (currently amended) Method according to claim 2 any of the preceding claims 2-8, wherein at least two cofactor dependent enzymes are provided in step A) and wherein at least one, preferably more than one, enzyme activity-enhancing agents are added during or between steps A), B) or C).
- 10. (currently amended) Method according to <u>claim 1</u> any of the preceding claims, wherein steps B) and C) are performed simultaneously.
- 11. (currently amended) Method according to <u>claim 1</u> any of the preceding claims, further comprising the steps of:
- D) performing an enzyme catalysed reaction in a liquid medium in the presence of crosslinked enzyme aggregates, obtained in step C), and
- E) recycling the crosslinked enzyme aggregates of step D).
- 12. (original) Method according to claim 11, wherein steps D) and E) are combined and wherein, in step D), at least two enzyme catalysed reactions are performed and wherein the crosslinked enzyme aggregates comprises at least two cofactor dependent enzymes, the first

Applicant: Smith et al.

Application No.: Unassigned

Filing Date: Herewith

Docket No.: 903-134 PCT/US

Page 5

enzyme being active in catalysing the first reaction when associated with the cofactor in oxidised state, the second enzyme being active in catalysing the second reaction when associated with the said cofactor in reduced state.

- 13. (currently amended) Method according to <u>claim 1</u> any of the preceding claims, wherein enhanced stabilisation of the enzyme system allow for recycle of the CLEA.
- 14. (currently amended) Crosslinked enzyme aggregates of enzymes, obtainable obtained according to the method of claim 1 according to any of the preceding claims.
- 15. (original) Crosslinked enzyme aggregates of enzymes comprising an enzyme activity-enhancing agent associated therewith.